



Ben Wright is one of the local "hams" who uses OSCAR-D.

## Radio amateurs cheer satellite

Area amateur radio operators are enthusiastic about the success of a rocket launch a week ago in which they played an integral part.

A Delta launch vehicle that lifted off the pad at the Western Test Range near Lompoc, Calif., contained an amateur radio communications satellite named OSCAR-D.

Amateur radio operators raised the \$60,000 needed to build the satellite, and construction was handled by volunteer operators from the United States, Canada, West Germany and Japan.

In recognition of their efforts, amateur operators were able to use their radios to listen in on all phases of lift off, which was broadcast from the National Aeronautics and Space Administration base.

A group of radio "hams" gathered at the Ben Wright home, 1031 S. Telulah St., Appleton, and when a successful orbit was reported, a cry of joy was sounded.

OSCAR-D is the eighth in a series of space satellites built by radio amateurs to be placed in orbit as piggy-back payloads on U.S. launch vehicles.

OSCAR is the acronym for Orbiting Satellite Carrying Amateur Radio. OSCAR 1, launched in December, 1961,

was a simple, battery operated radio beacon. Subsequent OSCARs evolved into long-lived communications relay satellites, available for use by amateur operators around the world.

OSCAR 6, launched in 1972, operated successfully in orbit and ceased to transmit in June of 1977. OSCAR 7, launched in 1974, continues to function well and is heavily used both for amateur communications and as an educational tool to bring space science and applications into the classroom.

Using curriculum material provided by the American Radio Relay League, and with assistance from local amateur radio operators, science teachers in school systems throughout the country are being provided an opportunity to give their students a direct, hands-on experience working with their own space satellite.

By building simple ground stations, making orbital predictions and operating with the satellites, students are being challenged to develop their skills in science and mathematics while experiencing the excitement of space communications.

Other applications with OSCAR satellites include small terminal, multi-

ple-access communications experiments; emergency communications exercises, and early tests of the search and rescue location systems currently under development by NASA.

OSCAR-D was designated OSCAR 8 once it achieved orbit. It is intended as a replacement for OSCAR 6, and will be used for expansion of the educational program.

It is a small, solar powered spacecraft, rectangular in shape, and weighing about 60 pounds. It is in orbit about 560 miles above the earth and it passes within range of any one location at about the same time each morning and evening.

Anticipated useful lifetime of the satellite is three years. It is traveling approximately 16,517 miles per hour.

Wright is one of five amateur radio operators in the valley who work through the satellite. He and others are already looking forward to the mid 1980s, when they hope to have a satellite at a 12,000 mile altitude in an elliptical orbit.

That, they say, will open up even greater transmission potential.